Present
27/1/43

App. F. IX-4

1928.

File No. 39-28

Serial Nos. 1-18

Previous References
Genl 120-24 (1-11)
" 19-25 (1-3)
" 56-25 (1-13)

Later References
Genl 71-31 (1-5)
Genl 52-33 (1-8)

General and Revenue Secretariat.

Serial Nos.

Eighteen

Part B for July 28

SUBJECT

Testing of lightning Conductors of Petroleum installations

~~D 447~~ dt 13.7.28

To Compiler. m. 9

Notifies certain Amendments made in the Rules to regulate the possession & transport of Petroleum.

G. R. S. APP F.III—1] 1928-1929

GENERAL AND REVENUE SECRETARIAT.

(Ecol)

NOTES. Ecol File No. 39-28

FILE HEADING.

Testing of lightning Conductors of Petroleum Installations

FROM

the Dir of Ins

No. C_2-312/28-9 Dated 21.8.28 Received 22.8.28

Diary No. 1624	Enclos.	Spare copies	Serial No.

BRIEF ABSTRACT OF LETTER.

Suggests that the work of testing lightning Conductors of Petroleum Installations may be entrusted to the officers of the Electric Dept, and requests orders of Govt. in the matter.

NOTES AND ORDERS.

Engs note

1) How is this work attended to in Madras and elsewhere?

(D) N.R
22.8.28.

NOTES—First Sheet.

General and Revenue Secretariat. Genl File No. 39 of 1928.

Serial No.	
	4) In places where there are Electrical facilities the suggestion of the Dir. of I & C may look good but not in other places where there are existing Petroleum installations. 3) This question was raised in for back as 19.1.26 - pages 4-5 (Secs. in Genl. 82-26, but no final decision was arrived at. 4) Draft requesting the Director to obtain the information on the point raised by the Govt. is however put up for approval and other orders. 27.8.28 5) Done 28/8
2	To the Dir. of ~~Genl~~ I & C No. D. 2613 of 28.8.28 Requests him to obtain information as regards the system in vogue in Madras & other places.
3	From the Dir of I & C. No. C_2 - 312/28-29 of 29.10.28 Submits the report called for with 2

NOTE—Contn. Sheet.

GENL & REV. SECRETT. 1928 DEVELOPMENT

App. F. III—2]

General and Revenue Secretariat. Geol File No. 39 of 1928.

Serial No.

6) Information regd. to issue of rules is called.

7) The Dir. of Ote suggests the adoption of the practice in Burma, India & Persia to issue rules similar to those that are in force there (Encl. no. 3 to p. 4-d) In case the Govt's proposal is to be given effect to, rules 6, 7 & 8 of ch. I - part II of the Petroleum rules will have to be amended & the dft. rules (to be framed) notified in the Gazette under sec. 23 (1) of the Petroleum Regn.

Sec. of S to Govt

8) If agreed, the Dir. of Ote may be asked to submit for the consideration of Govt the dft. instructions & amendments to rules.

Yes.

9) for orders.

10) The Dir may be requested to send up dfts of instructions & amendments to rules. We might follow the practice in British India, in this respect

30/10/28

Sec'l D)

WG 31/10.

NOTE—Contn. Sheet.

WD 01714—GPB—30,000—18-4-28

General and Revenue Secretariat

File No [illegible] of 192[illegible]

Serial No.

11) It is not necessary to write to the Dir of PTC. The points for consideration are:—

12) Is it necessary to amend rules 6 to 8 (Part II Chapt I) as in British India? On this point the Chief Elec. Engr may be unofficially consulted.

13) Under the amended rule 7 in Br. India, the testing is to be done by the licensee himself in accordance with instructions issued by the Chief Insp of Explosives. These instructions are contained in the 2d enclosure to the Dir's letter. The Dir is of opinion that the licensees of large tanks (to whom alone the rules have application) may be trusted to become expert enough for carrying out the tests. On this point, as well as on the efficiency of the instructions themselves, the Chief Elec. Engr may be consulted.

14) Just now, no systematic test of lightning conductors seems to be in operation

(1st Member)

15) Agreed. Yes 7/11/28

16) As pleases 10/11/28

OFFICE OF THE FIRST MEMBER OF COUNCIL
9 NOV. 1928
No. 2852

NOTE—Contn. sheet

WD 021—GPB—30,000—21-8-28

General and Revenue Secretariat | Cesl File No | App. F. III—2] of 1928.

Serial No. | memo. | Dated

No 94 D/14-11-28

(1) Forwarded, with Compliments, to the Chief Electrical Engineer, for favour of opinion on points raised in paras 12 & 13 of notes - page 4.

By order
M. S. Reddy
for Secy. to Govt.
Development Dept.

Memo No 37122 D/ 21-11-28

(18) Returned, with compliments, to the Secretary to Government, Development Department.

(19) I consider it necessary to amend rules 6-8 (Part II - Chap.I) so as to be in conformity as in British India and also entirely agree with the Director that the testing of Lightning Conductors of Petroleum Installations be done by an officer of this Department and would suggest that orders of Government for an amendment of the rules and testing of lightning conductors be obtained and communicated.

Enc - One file

17-11-1928
MGK-PRN.

Chief Electrical Engineer

NOTE—Contn. sheet

WD 021—GPB—30,000—21-6-28

General and Revenue Secretariat | Genl File No. 3.G | App. F. III—2] of 1926

Serial No.

20) The Chief Electrical Engineer's reply is subst. (Paras 18 & 19) - Page 5.

21) I am afraid it is not very clear. The Chief El. Engineer considers that it is necessary to amend the rules as in Bz. Subdiv but he goes on to say that the testing of Lightening Conductors shd be done by an officer of his Dept.

22) Now, this is self contradictory — for the amended rules in Bz. Subdiv do away with lightening conductors altogether, and substitute electrical connection of the tank in receptacle with the earth instead, and they also throw the responsibility for test and inspection on the licensee himself.

23) Possibly the Chief El. Engineer means that we might revise our rules so as to substitute earth connection for conductors, but

CEE / P. 11/28

NOTE—Contn. sheet

WD 021—GPB—30,000—21-8-28

3468

App. F. III—2]

General and Revenue Secretariat | Genl File No. 39 of 1928.

Serial No.

Must we not enforce the conducting tests and inspections by this Dept. In this case, a provision will have to be made for fees, similar to rule 8 of our rules.

24) The file may perhaps be referred back to him for making his meaning clear.

W.R.
23.11.28

(1st Member)

25) We may obtain his views further views in the light of what is stated above.

24.11.25

26) Forwarded with compliments to the Chief Electrical Engineer for favour of further views.

N. Ranga Raj
Secy to Govt

24.11.28

4 NOV. 1928
No. 3166

Usr 0102
26th nov 28

NOTE—Contn. sheet

WD 021—GPB—30,000—21-8-28

ELECTRICAL DEPARTMENT.

OFFICE OF THE CHIEF ELECTRICAL ENGINEER TO THE GOVERNMENT OF MYSORE, BANGALORE

Date 1st December 192 8

Ecol File No. 37 1928

Serial No.

Memo No 37452 dt 1-12-28

27/ Returned, with compliments, to the Secretary to Govt. Developments Department, Bangalore.

28/ The suggestion made by me is that we might revise our rules so as to be in conformity with the amended rules in force in C.&.M. Station and that all such installations of earth connections be subjected to tests and periodical inspections by the General Electric Inspector of this Department.

29/ It is also necessary to make a provision in the rules for fees that should be paid by the Licensee similar to rule 8 of our rules in the case of lightning conductors installations the rate of fee to be fixed being Rs10/- for each installation and Rs50/- for any number of connections in one installation. In case an installation proves bad or unsuccessful, the licensee should neverthless pay the prescribed fee and also for each subsequent test or tests until an installation is passed by the General Electric Inspector.

Encl — One file

SGF-AK.

Chief Electrical Engineer.

3468

App F. III—2]

General and Revenue Secretariat

Genl File No. 35 of 1928

30) The Chief Electrical Engineer's suggestion — which is in accordance with para 23 above — may be accepted.

(1st Member)

4/12/28

31) Draft rules may be put up. If we accept C.E.E.'s suggestion we would be adopting an arrangement somewhat different from that in C.M.S. for Bombay. The Chief Inspector of Explosives may also be consulted regarding the alterations proposed.

6-12-28

WD 021—GPB—30,000—21-8-28

32) Please put up draft notification.

33) I have [illegible] the Secretariat proposals [illegible] rules [illegible] 6/12/28

NOTE—Contn. sheet

34) Draft notifn calling for opinion of persons likely to be affected by the proposed amendments is put up.

35) Other points requiring orders in this case are :—

(1) Whether the Dir. of Ind. is to be consulted again as there is difference of opinion between himself & the Chief Elec: Engr as regards the amendment to Rule 8 (before the notifn is issued).

(2) Who should be the "testing officer" (Vide Part I rule 1(h)). — In this connection the Dir. of Ind. states that this work may be entrusted to the Electrical Deptt. (Vide letter

NOTE—Contn. sheet

WD 021—GPB—30,000—21-8-28

3603

Serial No.

dated 21.8.28), and if so whether a notice has to issue (Vide Rule 11 of the Rules & the precedents)?

(3) Since the Chief Inspr. of Mines & Explosives has nothing to do with the Petroleum Installations as per G. O. No. J. C. 5210-76/Geol. 2-24-4 dt 30.1.1925 whether it is necessary to consult him also in this case? (Para 31- concluding portion of the member's minute)

17.12.28 36) The question of ... may be consulted re rule 8, prescribing the fee when renewed.

for Secy

18/12

37) Please type as revised, and send for the opinion of the C.E.E in the first instance - with spl reference to rules 7 & 8. Also request him to revise the memo of instructions for testing, and see if they are suitable for being prescribed for the test to be conducted by the Dy Elect. Inspr

18.12.28

18/12

38) Draft sd 20/12/28

39) Issue

20.12.28

WD 021—GPB—30,000—21-8-28

General and Revenue Secretariat

File No. 617/39

App. F. III-2] of 1929.

Serial No.	
4	To the Chief Electrical Engr No. D-6697 dt 22-12-28 Forwards for opinion a draft notifn proposed to be published revising rules 6, 7, & 8 of Chap. I. Part. II of the Indian Petroleum Rules re the testing of lightning conductors of the installations
5	From the Chief Electrical Engineer No. 38420 dt 8/1/29. Returns the draft of notifn proposed to be published stating that it is in order & that he would submit a revised memo of instructions ~~drawn up~~ for testing lightning Conductors 4C) The C.E.E. says that the notifn proposed to be issued is in order & may issue & that a revised memo of instructions will follow 41) As already suggested in para 35 (1) ~~(3)~~ whether it is necessary to consult the Dir. of Ind Offices & the Chief Inspr of Explosives (para 35-(3)) now alone or after the receipt of revised instructions ~~to~~ from the C.E.E. is for orders.
12/1	12/1/29. Secy of (42) 12.1.29

NOTE – Contn. sheet

GEN. & R.T. SECRETARIAT 28 DEC. 1928 DEVELOPMENT BRANCH

3468
5617

12

General and Revenue Secretariat | Ecol File No 39 | App. F. III—2] of 192 8

Serial No.

4330

A

43) It seems unnecessary to consult the Dir of ITC, or the Chief Inspr of Explosives at this stage. The draft amendments may be published for general information, & the Chief El. Engr may be requested to furnish the memo of revised instructions early

1st Member

16/1/29
Cen
17/1

44) A. Appd
Mch
22/1/29
Cen
23/1

45) Issue appd. draft
Cen
28.1.29

23/1/29
Cen
28/1.

6 To the Compiler, Gazette of India

No. D-7711 dt 26-1-29

Notifies the publication of certain draft amendments to the Petroleum Rules & States that they will be considered on or after the 1st March 1929.

Refce:- Members minute - Para 43 - marked "A"

46) Dft. to the C.E.E. put up for aprobal

28/1/29

47) Issued
Cen
28.1.29

Contn. sheet

General and Revenue Secretariat | Ind File No. 39 | App. F. III—2] of 1928.

Serial No.

7 To the Chief Electrical Engineer
No. D. 7779 dt 29-1-29
Requests him to forward the revised Rules of instructions for testing lightning conductors attached to the Petroleum Revenue promised in his letter dt 8-1-29

From the Chief Inspector of Mines.
No. 1463 dt 7.2.29
states that the proposed reduction in the scale of fees prescribed for testing of Lightning Conductors on Petroleum Installations without making a corresponding reduction in the scale of fees ~~for~~ prescribed for ~~for~~ similar tests under the Explosives Rules seems unnecessary as it would be a loss to Govt. Revenue.

21.2.29

20 JAN. 1929
DEVELOPMENT BRANCH.

4&) Amendment to the existing Rule 8 - Ch. I - Part II of the Petroleum Rules ~~to~~ is proposed to be made as per ~~*~~ suggestions of the Ch: Elec. Engineer, tho' the said rule has been deleted in Notifn. No. 110 dt 11.2.25 issued by the Hon'ble the Result in regard to the reduction of fees in the proposed ~~*~~ amendment the Ch: Inspr. is not agreeable

Para 29 yr no:- p. 8

Yr. Y

Flag A

4&) But as regards the testing of

NOTE—Contn. sheet

Serial No.

lightning conductors on Explosives magazines, the department of Mines & Explosives seems to follow the instructions contained in rule 7 of the Hon'ble the Revenue Member's notifn dt 11.12.25. the rules of such inspections are also being embodied in the annual Govt Report of the department.

5) The Chief Inspr in para 3 of his letter says refers to the scale of fees in such cases in the Explosives Rules, but no mention of it is found in the rules now in force if any. he will be addressed in the matter for a detailed information on the point.

6) In the light of the observations made by the Chief Inspr it is a point for orders whether the amendment now proposed to be made should stand or altered as in Revenue notifn.

15.2.29

7) Mr. Bagnell makes two suggestions:-

a) that it is unnecessary to pass the amended rules as there is a likelihood of the administration of the Petroleum Regn being transferred to his dept:

I understand there is no such proposal now.

This may be left out of consideration

NOTE—Contn. sheet

General and Revenue Secretariat

Leof File No. 28 of 1928

App F. III—2]

Subject: Amendment of Petroleum Regn rules

Serial No.

(2) That it is not advisable to reduce the fees for inspection of tanks without a corresponding reduction in the fees prescribed under the Explosives Rules.

53) A scale of the latter fees is not available in this office. If necessary it may be called for from the Ch. Inspr. of Mines & Explosives. In the Comm Deptt, of course, no fees are prescribed as the onus of inspection of tanks is shown on the licensee himself.

Secy to Govt
16.2.29

16/2

54) Please bring up.

16 2 29 Clk

55) Please ask the Chief Inspr of Explosives to state what fees are being levied now, & under what authority.

21 2 29 Clk 21/2

56) Draft put up accordingly for approval

20/2/29

57) Issue Clk 21.2.29

9 To the Chief Inspr of Mines.

Rev. D. 8618 dt 22.2.29

Requests him to intimate what fees are being levied now for testing lightning conductors attached to the Explosives magazines etc under what authority.

SECY. SECRETARIAT 23 FEB 1928 DEVELOPMENT BRANCH

No. Contn. sheet

General and Revenue Secretariat — Geol File No. 39 — App. F. III—2] of 1928.

Serial No.	
10	From the Chief Inspr. of Mines No. 1583 dt 15.2.29 furnishes the information called for in SC 19).
11	From the Chief Elect. Engineer No. 39806 dt 28.2.29 forwards two copies of memo of instructions for testing lightning conductors attached to the Petroleum Premises. 58) When rules under the Explosives Rules were first framed in 1914 no fee was levied for the testing of lightning conductors attached to the Explosives magazines this system continued to be in force till March 1925 67) When fees for such purposes were levied by the Govt. of India and the Indian Explosives Rules amended, the Chief Inspector of Mines, in his letter dt 11.3.25 suggested similar amendments to the Explosives Rules Condition No. 8 of Form J to the Explosives Rules (but not to Rules proper like the Petroleum Rules - 8 of Chap. I) which were approved. (Page 1 of the Explosives Rules).

NOTE—Contn. sheet

Serial No.

60) In the case of Petroleum Installation Rule 8 - chap. I - was the same in Govt. of India including the C & M. station, ~~as~~ Bangalore till 1925, when it was deleted (Notifn dt 11.12.1925 by the Hon'ble the Resident, and page 9 - Rules framed by the Govt of Bengal). To follow the practice in British India as well as in the C & M. station, the Dir. of I & C proposed amendments to Rules 6, 7 & 8 of our Rules, which were objected to by the Chf: Elec: Engineer, and the draft Notifn was published in the Gaz. as ~~for~~ desired by him.

61) The Chief Inspr: of Mines now states that the proposal to reduce the rates of fees for testing the Conductors on Petroleum premises without a corresponding reduction in the scale prescribed for similar tests under the Explosives Rules will end in loss of Revenue to Govt.

Sl. 8.

62) The scale of fees ~~pres~~ as it now stands under the Petroleum & Explosives Rules and that proposed by the several officers, are as detailed in the harbour statements annexed.

NOTE – Contn. sheet

Rule	Scale of fees as at present	Modifications proposed by (1) Dir. of I & C.	(2) Chief Elec. Engr.	(3) Chief Inspr. of Mines.
Petroleum installations Rule-8-cl. I Govt 24-28	1) Rs. 20/- for each conductor subject to a limit of Rs. 200/- for any no. of conductors in one installation 2) Additional fee of Rs. 15/- for each unsuccessful test subject to a limit of Rs. 20/- for any no. of such tests made in one day on a single conductor.	Modifications of rules 6 and 7 and the deletion of Rule 8 altogether as in other Govts	1) Rs. 10/- for each connection, but should not exceed Rs. 5/- for any no. of connections relating to one inspection. 2) The same rate of fees in the case of unsuccessful tests also like the connections are passed by the Chief Elec. Inspector	Not in favour of ~~reduction~~ the ~~as proposed by~~ proposal of the Chief Elec. Engineer i.e. the amendments to rule 8 as already notified, as it involves loss of Rev. to Govt.
Explosives Magazine Form J - condition 8 - p. 71	1) Rs. 20/- for each test 2) In the case of each of the unsuccessful tests Rs. 15/- until it is passed as satisfactory.			

General and Revenue Secretariat | Revl File No 39 | of 1926.

Serial No.

63/ ~~In case~~ ~~If~~ the Govt. opinion of the Chief Inspr. of Mines ~~is to be considered~~ be sought the amendment to rule 8 as already ~~sent~~ published in the draft N. obviously requires modification 64/ orders are therefore required on the above point, and also the adoption or otherwise of the ~~under~~ instructions for testing such lightning conductors forwarded by the chief Elec. Engr. as called for by Govt.

[illegible] S. 87.

7-3-29

65/ Mr. Bacquali's suggestion to amend the Govt. Commission of proposed fee for the inspection of Petroleum tanks to the level of that charged for the inspection of lightning conductors in Explosive magazines, or in the alternative, to reduce the latter to the level of the former, may kindly be referred to the C. C. S. & the D. Insp for opinion

Secy D

66/ Yes Clk 11.3.29

13 3 29

Clk 13/3

67/ Issue drafts Solicd. for apptl

[illegible] 13/3/29

68/ Issue Clk 14.3.29

NOTE—Contn. sheet

8025 20

App F. III—2]

General and Revenue Secretariat | Ecol File No. 39 of 1928

Serial No.	
12	To the Chief Elec. Engineer no. 9492 & 16-3-29 forwards extracts of letter no. 1463 & 7-2-29 & copy of letter no. 1583 & 25-2-29 from the Chief Inspr. of mines & calls for opinion as regards the reduction of fees in the case of tests to made of lightning conductors attached to the Petroleum premises.
13	To the Dir. of I & C no. D.9493 & 16-3-29 forwards ~~copy of~~ a statement furnishing the opinion of the several offices as regards amendments to be made to rules 6, 7 & 8 of Ch-I of the Petroleum Rules & calls for a detailed report.
14	from the Chief Elec! Engineer no. 40363 & 21/22-3-29 furnishes the opinion called for & states that the Nagpore Explosives Rules ~~be~~ may be amended so that they may be agree with those of Petroleum Rules.
691	Submd The opinion called for from the Dir. of I & C (8-13) may be amended no ~~copy~~ 26-3-29 copy of 79 Reg. note on P.C.O.

Cu 27.3.29

W 1514 14.4.29

GEN. & REV. SECRETARIAT
15 APR 1929
DEVELOPMENT BRANCH.

WD 021—GPB—30,060—21-8-28

Serial No.

15 From the Dir. of Ste
No. C_2 312/28-29 dy 25·3·29
forwards copy of letter no. 5703 dy 15·3·29 recd. from the Standard Oil Co. Madras, regarding the amendments proposed to be made to rules 6, 7 & 8 of Cle. I of the Petroleum Rules, and states that it is unnecessary to follow the Br. Indian practice in the matter of testing lightning conductors, as suggested by the Company.
71) ~~XA~~ Opinions were called for from the Cle: Elec. Engineer & the Dir. of Ste on the points suggested by the Cle: Insp^r of mines. ~~and~~ The ~~a~~ reply ~~was~~ recd. from the C. E. E was filed. to-day. on 28/3/29 (with D. no. 8025) for perusal & that from the Dir of Ste, may be awaited as already suggested. is still due. This
72) for orders.
29
30/3/29 73) Yes. Please issue reminder in proper time
S.O.
2/4

16 From the Dir. of Ste
No. C_2 - 312/28-29 dy 23-4-29

WD 021—GPB—30,000—21-8-28

8025
8135 } 8974
8974

22

Serial No.

states that oil Cos. prefer ~~that~~ to have the Br. Indian practice in force also & if Govt. decide to make special provision for testing lightning Conductors the scale of fees proposed by the C.E. may be approved & the dft. rules published in Notifn dt 26.1.29 may be brought into force.

76) The Dir. has not given any decided opinion in the matter, but simply invites attention of Govt. to the opinions of the ~~of~~ Oil Companies who prefer to follow the procedure, as in Br. India & states that if Govt. decide to make special provisions for testing the lightning Conductors, the scale of fees proposed by the C.E.E. may be added.

P.W.D

75) In his earlier reference (Secy. C-312/28-29 of the 27th Oct. 1928 - Pl-3) he (the Dr.) said that the Br. Indian practice may be followed, ~~but according to the objections raised by the Govt.~~ and when the opinions of the C.E.E & the Chief Inspr. of Mines were communicated to him, he agreed with the former, even

Q

NOTE—Contn. sheet

8135
8974

(23

App. F. III.—2]

General and Revenue Secretariat

Govt File No. 39 of 1928.

Serial No.	
Sl 15 - Z	this the owners of the Petroleum installations differ from those in 76) Points for consideration now are
	(1)(a) Whether to frame our Rules on the lines of those that are in force in Bor. India & in the C & M. Stations, Bangalore,
	or (b) to adopt in toto the amendments already notified in toto by our Govt.
	In case, the latter alternative is to be adopted the suggestion of the Chief Inspr of Mines in his letter dated 7.2.29 (para 3) require consideration
R	(2) whether to amend the Explosives Rules, also as suggested by the C.E.E in his letter dt 22/3/29 (para 3)
Y	~~77~~) In case this is to be accepted the Chief Inspr of Mines will have to be consulted again, as the rules proposed will be greater than those at present.
	~~78~~ (3) Whether it is not necessary to consider the request of the Standard oil Company Madras, on the point before the final decision is arrived at
	77) the Ch. Insp. of Mines states in his D.O. 24/4 dated 24/4/29. that the fee at present charged under the Explosives Regn. viz. Rs 20/- per magazine for the first test & Rs 15 extra for a

NOTE—Contn. sheet

Petroleum Regulation Rules

Serial No.

respond to the
re-test, are greater than those charged under
the Petroleum Regn. rules. But the C.C.E. thinks
that the latter are actually greater as each
to have not less than
installation has two connections & a fee of
Rs 10 is to be charged for each connection with
a max. limit of Rs 50 per tanks; the same fees
are also to be levied in the case of a re-test.
The C.C.E. is therefore, of opinion that the
Explosives rules should be brought into line
with the Petroleum ones. The opinion of the Ch.
Insptr of Mines may be obtained on this.
78) As regards following the practice in British
India as suggested by the Companies perhaps
the opinion of the C.C.E. may be obtained on
the suggestion. (Perhaps unnecessary as the draft
rules have been approved by him already)
Secy 15)

Chn
15.5.29

16/5

79) The objections - ~~of objections by~~
contents of the Chief Insptr of Mines &
the proposed amendment are — (1) that
it is unnecessary if the administra-
tion of the Pet. Regn & Rules is as
he understands, to be transferred to him
& (2) that the reduction in the fees
for tests on Petroleum installations
without a corresponding reduction in
fees for tests of Explosives Stores or
Magazines would be undesirable. He
also refers to the likelihood of a
losing revenue from the proposed chang

NOTE.—Contn. sheet

Serial No.

80) There is no proposal to transfer the administration of the Pet. Regn & Rules & the Chief Insp of Explosives, and as Mr Forbes has shown, there will be no reduction of fees below the level of those levied under the Explosives Rules. If anything, the fees will be higher; & Mr Forbes recommends that the legislation in Explosives Rules shd also be correspdgly revised - but that is a proposition which needn't now be considered

81) Another objection - of a quite different nature - is that taken by the Oil Companies & referred to in the Dir's letter dated the 22/23rd April. That as they have qualified Engineers in their own service, they can arrange for the testing themselves, & do not need the service of the Electrical Dept. But we have a very well equipped Electrical dept and as the proper conduct of the tests has a bearing on public safety we have a right to insist on carrying out the tests & charging reasonable fees

82) The fees, as provided for by Mr Forbes, are based on the work & time & are therefore reasonable

A 83) I think that the proposed

NOTE – Contn. sheet

Serial No.

A | amendments might be effected.

84) The C.E.E. has given very elaborate and presumably very complete, instructions for the conducting the tests, & these might also be appd.

B | 85) The question of amending the Explosives Rules might be taken up separately if considered necessary

(1st Member)

7603/65

16/5/29
Cen
16/5

86) A+B.I agree

Mayle
18-5-29

20/5/29
Cen
20/5

87) Asked. with two drafts

agd 1/6/29

88) Opts for approval

Secy S)

Cen
12.6.29

89) Please perhaps clean dfts as reqd

22/6/29
Cen
24/6

OFFICE OF THE
FIRST MINISTER'S COUNCIL
5 JULY 1929
No. 124

90) Clean dfts (2) subd.

agd 29/6/29

Secy S) 91) Drafted Cen 2.7.29

93) Issue

Cen 6/7 6.7.29 (1st Member) 92) Mayle 6.7.29 Cen 5/7 4/7/29

8974

(29)

General and Revenue Secretariat

Secl

~~I & C~~ File No. 39

App. F. III—2]

of 1928

Serial No.

17

To the Dir of Ind
" Chief Inspector of Mines
" Chief Electrical Engineer
Ind. D. 1664-6/13.7.29

Passes on views prepared by the Efficient & Systematic inspections of Lightning Conductors on petroleum installations in the State

GEN. & REV. SECRETARIAT
31 JULY 29
DEVELOPMENT BRANCH.

Note—Contn. Sheet

WD 01684—GPB—30,000—20-4-29

Encl. 39-28-1

TELEGRAPHIC ADDRESS :— "INDUSCOM"

In reply please refer to
C2 No. 312/28-29.
Encls:—

GOVERNMENT OF MYSORE.

DEPARTMENT OF INDUSTRIES AND COMMERCE.

SECRETARIAT 16217 16. 1928 DEVELOPMENT BRANCH

OFFICE OF THE DIRECTOR,

Dated, Bangalore...20th August 1928.

21 AUG. 1928

FROM

C. RANGANATHA RAO SAHIB, ESQ., B.A., B.L.,
Director of Industries and Commerce in Mysore,
Bangalore (India.)

To

N. Rama Rao Esq., B.A., B.L.,
Secretary to Government - Development Departments,
BANGALORE.

SIR,

I have the honour to invite your reference to clauses 6 - 8 Chapter I Part II of the Rules under the "Petroleum Regulation" regarding the testing of the Lightning Conductors of Petroleum installations. The efficiency of every Conductor has to be tested at least once a year by an officer appointed in this behalf by the Chief Inspector of Explosives. There is no information available to show if this testing is being done at present. In the interests of the safety of the public, it is necessary to arrange for the systematic test of the Lightning Conductors. I suggest that this work may be entrusted to the Officers of the Electric Department as they are acquainted with the work. The orders of Government may kindly be obtained and communicated to me at an early date.

How is this work attended to in Madras + elsewhere?

I have the honour to be,
S i r,
Your most obedient servant,

22 8 28

C Ranganatha Rao Sahib
DIRECTOR.

WB 22/8

AKG.

[A. P. F. VI. G1]

SUBJECT.....

.....

.....

Section General

File No. 39-28

Serial No. 2

No. S 2513/

Diary No. of letter replied to....1674.....

General and Revenue Secretariat

( )

the *192*

To The Dir. of Ste

Date of issue.....28/8/28.....

Signed by.....Mr V. V. Acharya.....

Sir

With reference to your letter no. C_2-312/1928-29 of 21-8-28 in the matter of testing the Lightning Conductors of Petroleum Installations I am directed to request you to obtain information in ~~regard to the~~ ~~standard instructions~~ from ~~the~~ ~~Chief~~ Chief. Now this work is being attended to in Madras and over

List of enclosures.....

Copied by .....

Examined by .....

disclosure

The former manuscript
- Clements

requested

MM 7/5

Dec - 65

else where.

The former agreement is requested

Sheaves

4 Geol 39-28-2

TELEGRAPHIC ADDRESS :— "INDUSCOM"

In reply please refer to
No. C2-312/28-29
Encls:— 3.

GOVERNMENT OF MYSORE.

DEPARTMENT OF INDUSTRIES AND COMMERCE.

OFFICE OF THE DIRECTOR,

Camp, Mysore, *Dated, ~~Bangalore~~, 26th Oct., 1928.*

FROM

C. RANGANATHA RAO SAHIB, Esq., B.A., B.L.,
Director of Industries and Commerce in Mysore,
Bangalore (India.)

GEN'L & REVENUE SECRETARIAT
29 OCT. 1928
DEVELOPMENT BRANCH

To

N. Rama Rao Esq., B.A., B.L.,

Secretary to Government - Development Departments,

Bangalore.

SIR,

With reference to your letter No. D.2513/Geol. 39-28-2 dated 28-8-'28 requesting for a report on the practice regarding the testing of the Lightning Conductors of Petroleum Tanks in British India, I have the honour to submit copy of a letter No.434 dated 18-9-'28 from the Chief Inspector of Explosives, Calcutta, together with enclosures. The Rules in force in British India, corresponding to Rules 6, 7 and 8 of chapter I part II of our Rules have been amended and a copy of the amended Rules in force in the C & M Station, is enclosed. The amended Rules do not require that petroleum tanks over 10,000 gallons capacity should be provided with Lightning Conductors. The tanks are required to be connected electrically with the earth in the manner indicated in the Rules. The responsibility of carrying out the periodical inspection of these connections is laid on the Licensee of the tank and instructions have been issued for his guidance (vide copy enclosed). Rule 8 prescribing the fee for inspection is cancelled.

2) In view of the fact that the Licensees of such tanks are invariably the large oil companies who are well able to obtain expert advice, we may follow the practice in British India and issue Rules similar to those that are in force there.

P.T.O.

3) I request that the orders of Government may kindly be obtained with regard to the amendment of our Rules as proposed.

I have the honour to be,

S i r,

Your most obedient servant,

C. Ranganatha Rao Sahib

DIRECTOR.

A.K.G.

Encl. 1 to 2c.3

Copy of letter No.434 dated 18-9-28 from the Chief Inspector of Explosives in India, Calcutta, to the Director of Industries & Commerce, Bangalore.

With reference to your letter No.C2-312/28-29 dated the 6/10th September 1928, I have the honour to state that Rules 6, 7 and 8 of Chapter I Part II of the rules issued under the Indian Petroleum Act have recently been amended (a copy of Notification No.110 dated 11th December 1925 issued by the Hon'ble the Resident in Mysore, amending the Rules is enclosed) Under the revised rule 6 Lightning Conductors are not required to be attched to petroleum tanks, but such tanks are to be electrically connected with the earth in the manner laid down therein. In accordance with the revised rule 7 the connections and contacts referred to in Rule 6 are to be inspected and tested by the licensee of the tank once in every year A copy of the instructions for testing Lightning conductors attached to Explosive magazines or petroleum premises or electric earths on petroleum tanks is enclosed.

C o p y

Director.

A.K.G.

Encl. 2 to Sl. 3.

1

nstructions for testing Lightning Conductors attached to Explosive Magazines or Petroleum Premises or Electric Earths on Petroleum Tanks.

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1. First examine visually all joints and connections above ground to discover if any of these are loose or disconnected.

2. If accessible, examine the point or group of points, on the Lightning rod to see if it is firmly fixed to the Lightning rod. Notice whether any of the staples fastening the conductor to the walls have come away.

3. The electrical test should be carried out in the dry season. If Using the Electrical Bell Type of Machine, attach one end of a covered wire A to one of the terminals on the machine and the other end to the point of the Lightning rod or in the case of tanks press the other end on a suitable point of the tank first having scraped away the paint and exposed clean metal, using a piece of wood to protect the hand from electric shock. Attach another wire B to the remaining terminal on the machine, its free end being buried to a depth of about an inch in the ground about three yards away from the point where the Lightning conductor enters the earth ~~in the~~ or in the case of tanks about two yards away from the point where the earthing ribbon or pipe to which the earthing ribbon is attached enters the earth. Pour about one pint of water on the ground where thw wire B is buried. Now see if the bell will ring, if the handle of the machine is turned.

4. Should a bell type of machine not be available, an ordinary electric bell in series with two Leclanche batteries, also in series, will serve the purpose. In this case wire A is attached to one terminal of the bell and wire B to one terminal of the battery, the remaining terminals of bell and batteries being correctly connected together. The free end of wire B is in this case not buried in the ground but pressed on to the lowest point visible on the earthing ribbon and the free end of wire A pressed on a suitable point of the tank as above or on the point of the Lightning Conductor.

5. If the bell will not ring, look for loose joints. See if the bell will ring when the end of wire B is put in contact with the lowest point visible on the Lightning conductor or in the case of tanks, when the end of wire A is pressed in contact with the lowest point visible on the earthing ribbon.

6. The Lightning conductor or Electric earth is not in order unless the bell rings clearly when tested as in ~~telegraphs~~ paragraphs 3 and 4 above.

7. When testing electric earth attached to petroleum tanks never press wire A or B in contact with any part of atank where petrol vapour is likely to be present.

8. When using Lightning conductor or Petroleum tank testing tests which measure the actual resistance, proceed as laid down in"Code of Instructions for the guidance of Public Works Officers in the Erection and Testing of Lightning Conductors". (Superintendent, Government Printing, India, Calcutta). The result of the test should not be considered satisfactory until the resistance of the Lightning Conductors earth or in the case of tanks of the earth is found to be less than ~~10 Ohms~~. 10 Ohms.

C o p y

Director

G.

Encl 3 to 81 3

8

The Hon'ble the Resident in Mysore,

Notification,

No.110 dated, Bangalore, the 11th Decr.1925.

In exercise of the powers conferred by Section 9 of the Indian Petroleum Act 1899 (VIII of 1899), as applied to the Civil and Military Station, Bangalore, the Hon'ble the Resident in Mysore with the previous sanction of the Governor General in Council, is pleased to make the following amendments in the Rules to regulate the possession and transport of petroleum in the said station which were published in the Notification of this Residency No.52 dated the 19th July 1909.

A m e n d m e n t s.

In Chapter I of part II of the said Rules :-

(a). For Rules 6 & 7 the followingshall be substituted namely:-

6. Every tank or other receptacle for the storage of Petroleum in bulk, except a tank or receptacle which is not of sufficient capacity to contain ten thousand gallons of petroleum and is so situated as not to be liable to cause danger in the event of the petroleum being ignited, shall be electrically connected with the earth in an efficient manner by means of not less than two separate and distinct connections placed at opposite extremeties of such tank or receptacle and the roof and all metal connections of such tank or receptacle shall be in effecient electrical contact with the body of such tank or receptacle.

Explanation:- A tank or receptacle shall be deemed to be so situated as not to be liable to cause danger in the event of the petroleum being ignited if it is not in close proximity to any other tank or receptacle or to any building not forming part of the installation and if it is surrounded by a wall or embankment or sunk in an excavation, the enclosure thus formed being sufficient to contain the whole contents of the tank or receptacle.

7. Not less than once in every year the connections and contacts referred to in Rule 6 shall be inspected and tested by the licensee of the tank or receptacle in the manner prescribed by the Chief Inspector of Explosives in India, and a record of such inspections and tests shall be maintained by such licensee and such record shall be produced on demand by the Chief Inspector or an Inspector of Explosuves".

(b). Rule 8 shall be cancelled.

Sd- K. Evans Gordon, Major

SECRETARY TO RESIDENT.

COPY

Director.

AKG.

Appendix F G—1

SUBJECT.....

.....

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Section Secl

File No. 39-28

Serial No. 4

No. D. 6597 en 2

Diary No. of letter replied to.....

General and Revenue Secretariat

( )

the *192*

To the Chief Electrical Engr. to the Govt of Mysore

Bangalore

Date of issue 22/10/28

Signed by Mr V. S. Sastri

page 8 of office note.

With reference to your memo No. 37452 dated the 8th Dec. 1928, regarding the testing of the Lightning Conductors of Telephone Installations I am directed to forward for favour of opinion a draft notification proposed to be published amending the Rules 6, 7 & 8 of Chap. I – Part II – of the Mysore

List of enclosures.....

to be obligingly returned

Copied by.....

Examined by.....

over

Colombia Rules.

am also to ~~request~~ enclose herewith a ~~kindly furnish the accompanying~~ memo of instructions for testing the lightning conductors and request to be informed if ~~they~~ the instructions are suitable ~~furnish particulars as~~ ~~regards the suitability~~ for being recorded ~~for the~~ test to be conducted by the Govt. Electrical Inspector.

Your favour of an early reply is requested.

Yours etc

20.12.28

for Director-Gen.

MG

IN REPLY REFER TO
No. 38420
ENCLO. one

Telegraphic Address:
"GOMED"

Code Used
BENTLEY'S LIEBER'S
A. B. C. 6TH EDITION
BUSINESS TELEGRAPH CODE

GOVERNMENT OF MYSORE

ELECTRICAL DEPARTMENT

OFFICE OF THE CHIEF ELECTRICAL ENGINEER,
MYSORE, INDIA

GEN. & REV. BRANCH
11 5817
JAN. 1929
DEVELOPMENT DEPARTMENT

Bangalore 8th January 192 9

Geol. 39-28-5

10/1/29

The Secretary to the Govt. of
His Highness the Maharaja of Mysore,
Development Departments,
Bangalore.

Sir,

Lightning conductors Petroleum tank installations.

With reference to your letter No.D-6597/Geol. 39-28-4 dated 22nd December 1928, I have the honour to return the draft of the notification proposed to be published and to state that it is in order and may issue

2. As regards the memo of instructions for testing the conductors, I consider it necessary to modify the same as we have now a days scientific instruments for measuring the earth resistance etc., and I shall have a revised memo of instructions drawn up and sent to you for further action.

I have the honour to be,
Sir,
Your most obedient servant,

MGK-AK.

Chief Electrical Engineer.

D 7711 / Geol-34-28-6 12
dated 26/1/29

Notification.

The following draft amendments which the Government propose to make in exercise of the powers conferred on them under Sec. 8 of the Mysore Petroleum Regulation I of 1923 to the rules framed thereunder and issued with Notification No. C.5415/Geol. 103-22-14 dated the 13th March 1924 are hereby published for the information of the persons likely to be affected thereby, and notice is hereby given that the said draft will be taken into consideration on or after 1st March 1929 and that any suggestions or objections which may be received from any person or persons with respect to the said draft before the date aforesaid will be considered by Govt.

Draft amendments.

In Chapter I of Part II of the said Rules:-

For Rules 6, 7 and 8 the following shall be substituted: -

"6 Every tank or other receptacle for the storage of petroleum in bulk except a tank or receptacle which is not of sufficient capacity to contain 10,000 gallons of petroleum and is so situated as not to be liable to cause danger in the event of the petroleum being ignited, shall be electrically connected with the earth in an efficient manner by means of not less than two separate and distinct connections placed at opposite extremities of

p.t.o.

such tank or receptacle and the roof and all metal connections of such tank or receptacle shall be in efficient electrical contact with the body of such tank or receptacle.

Explanation : - A tank or receptacle shall be deemed to be so situated as not be liable to cause danger in the event of the petroleum being ignited if it is not in close proximity to any other tank or receptacle or to any building not forming part of the installation and if it is surrounded by a wall or embankment or sunk in an excavation, the enclosure thus formed being sufficient to contain the whole contents of the tank or receptacle.

7. Not less than once in every year the connections and contracts referred to in Rule 6 shall be inspected and tested by the General Electric Inspector of the Mysore Electrical Department who shall be given every facility for such inspection by the licensee of the tank or receptacle. The General Electrical Inspector shall conduct the tests in such manner as may be prescribed by the Chief Electrical Engineer and prepare a report of the result in duplicate. One of the copies shall be furnished to the licensee and the other submitted to the Chief Electrical Engineer who shall forward it without avoidable

delay with his remarks to the Director of Industries and Commerce for record.

8. The fee payable for tests carried out under Rule 7 shall be rupees 10/- a year for each connection but shall not exceed ~~xxx~~ rupees 50/- for any number of connections relating to one receptacle. In case the test discloses an unsatisfactory connection, and the need for rectification, the licensee shall nevertheless be liable to pay the prescribed fee and be likewise liable to pay a fee at the same rate for every subsequent test which may be necessary till the connections are passed by the Director of Industries and Commerce ~~xxxxxx~~ on the report of the General Electrical Inspector

By Order,

20.12.28

23.1.29

For Secretary to Government,
Development Departments.

To

The Compiler, Mysore Gazette for publication.

Memo No.D. 7712

Dated, 26th ~~Dec.~~ Jan 1929.

Copy forwarded with compliments to the Director of Industries and Commerce for information.

By Order,

23.1.29

Secy. to Govt. Dev. Deptts.

DEVELOPMENT SECRETARIAT.

No. D, 7711—*Geol.* 39-28-6, *dated* 24*th*—24*th January* 1929.

The following draft amendments which the Government propose to make in exercise of the powers conferred on them under section 8 of the Mysore Petroleum Regulation, I of 1923, to the Rules framed thereunder and issued with Notification No. I. C. 5415—Geol. 103-22-14, dated the 13th March 1924, are hereby published for the information of the persons likely to be affected thereby, and notice is hereby given that the said draft will be taken into consideration on or after 1st March 1929 and that any suggestions or objections which may be received from any person or persons with respect to the said draft before the date aforesaid will be considered by Government.

Draft Amendments.

In Chapter I of Part II of the said Rules :—

For Rules 6, 7 and 8, the following shall be substituted :—

"*6* Every tank or other receptacle for the storage of petroleum in bulk except a tank or receptacle which is not of sufficient capacity to contain 10,000 gallons of petroleum and is so situated as not to be liable to cause danger in the event of the petroleum being ignited, shall be electrically connected with the earth in an efficient manner by means of not less than two separate and distinct connections placed at opposite extremities of such tank or receptacle and the roof and all metal connections of such tank or receptacle shall be in efficient electrical contact with the body of such tank or receptacle.

Explanation.—A tank or receptacle shall be deemed to be so situated as not to be liable to cause danger in the event of the petroleum being ignited if it is not in close proximity to any other tank or receptacle or to any building not forming part of the installation and if it is surrounded by a wall or embankment or sunk in an excavation, the enclosure thus formed being sufficient to contain the whole contents of the tank or receptacle.

7. Not less than once in every year the connections and contacts referred to in Rule 6 shall be inspected and tested by the General Electctric Inspector of the Mysore Electrical Department who shall be given every facility for such inspection by the licensee of the tank or receptacle. The General Electric Inspector shall conduct the tests in such manner as may be prescribed by the Chief Electrical Engineer and prepare a report of the result in duplicate. One of the copies shall be furnished to the licensee and the other submitted to the Chief Electrical Engineer who shall forward it without avoidable delay with his remarks to the Director of Industries and Commerce for record.

8. The fee payable for tests carried out under Rule 7 shall be Rs. 10 a year for each connection, but shall not exceed Rs. 50 for any number of connections relating to one receptacle. In case the test discloses an unsatisfactory connection, and the need for rectification, the licensee shall nevertheless be liable to pay the prescribed fee and be likewise liable to pay a fee at the same rate for every subsequent test which may be necessary till the connections are passed by the Director of Industries and Commerce on the report of the General Electrical Inspector.

By Order,
N. RAMA RAO,
Secretary to Government,
Development Departments.

Appendix F G—1

SUBJECT.....

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Section Elect

File No. 39-28

Serial No. 7

No. D7779

Diary No. of letter replied to.....

General and Revenue Secretariat

( )

the *192*

To

The C. E. E in

Rangoon

Date of issue 29/1/29

Signed by Mr C E Brander for

Sir

I am instructed to refer to your letter No. 38420 dt 8-1-29 and am directed to request & you to forward as provided for the consideration of Govt at a very early date the revised Rules & instructions for testing lightning conductors attached to the Petroleum Premises, ~~Rangoon~~ Rangoon.

I have etc

List of enclosures.....

Copied by.....

Examined by.....

over

28-1-29

for Dep: Secy

WD 0399—GPB—20,000—18-9-28

Geol. 39-28-8

D.M.E. 34]

DEPARTMENT OF MINES AND EXPLOSIVES.

Telegraphic address:
"MINESPECTOR."

OFFICE OF THE CHIEF INSPECTOR OF MINES IN MYSORE,

No. _____
Encl.

Dated Oorgaum, 7th February *1929.*
(S. India)

GEN. & REV. SECRETARIATE
6572
8 FEB. 1929
DEVELOPMENT BRANCH

FROM

R. BOCQUET, ESQ., J.P.,
CHIEF INSPECTOR OF MINES IN MYSORE.

To

N. Rama Rao, Esq., B.A., B.L.,
Secretary to the Government of
His Highness the Maharaja of Mysore,
Development Departments,
Bangalore.

Sir,

With reference to certain draft amendments to Rules 6, 7 and 8 of Chapter I, Part II of the Mysore Petroleum Rules published on page 93, Part II of the Mysore Gazette dated 31-1-29 under Government Notification No. D.7711/Geol. 39-28-6 dated 24-1-29 re: the testing of Lightning Conductors attached to Petroleum Installations, I have the honour to enquire whether these amendments are necessary just at present inasmuch as I understand that the transfer of the administration of the Mysore Petroleum Regulation and Rules framed thereunder from the Department of Industries and Commerce to the Department of Mines and Explosives is now, or may shortly be, under contemplation by Government.

2) If this transfer is to be effected in the near future the necessity for these amendments will not arise, since the officers of the Department of Mines & Explosives, who are already conducting the testing of the Lightning Conductors on all Explosives Magazines throughout the State, can likewise test the Lightning Conductors connected with the Petroleum Installations as well. I am suggesting this for the consideration of Government now with a view to avoid the trouble of cancelling the same amendments at a future date should the contemplated transfer become an accomplished fact.

3) Moreover, the proposed reduction in the scale of fees prescribed for the testing of Lightning Conductors on Petroleum Installations

without

without making a corresponding reduction in the scale of fees prescribed for similar tests under the Mysore Explosives Rules - in regard to both of which the practice in British India has been followed hitherto - seems unnecessary as the Government is liable to lose revenue by the contemplated change.

4/ Uniformity in this respect appears both desirable and necessary.

I have the honour to be,

Sir,

Your most obedient servant,

E. Bocquet.

CHIEF INSPECTOR OF MINES

IN MYSORE.

M.S.

Appendix F G—1

19

SUBJECT.....

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Section Revl

File No. 39-28

Serial No. 9

No. D 8618

Diary No. of letter replied to.....

General and Revenue Secretariat

( )

the *192*

To

The Chief Inspr of Mines

Date of issue 22/12/28

Sir

Signed by Mr CEN

With reference to para 3 of your letter No. 1463 of the 7th May 28, I am directed to request you to ~~furnish~~ inform, as soon as possible, for the information of Govt, what fees are being now levied ~~now~~ for testing of lightning conductors attached to the Explosives mfg. magazines & ~~the~~ under what authority

In the event of an

over

List of enclosures.....

Copied by.....

Examined by.....

WD 0399—GPB—20,000—18-9-28

only reply is requested

I remain

CW
21/11/19

Yr Dev: Serv

P.S.

Geol 39-28-10

21

D.M.E. 34]

Telegraphic address:
"MINESPECTOR."

DEPARTMENT OF MINES AND EXPLOSIVES.

OFFICE OF THE CHIEF INSPECTOR OF MINES IN MYSORE,

No. 1583.
Encl.

Dated Oorgaum, 25th February 1929.
(S. India)

7135

URGENT.

FROM

R. BOCQUET, Esq., J.P.,

CHIEF INSPECTOR OF MINES IN MYSORE.

To

N. Rama Rao, Esq., B.A., B.L.,
Secretary to the Government of
His Highness the Maharaja of Mysore,
Development Departments,
Bangalore.

Sir,

With reference to your letter No. D.8618/Geol. 39-28-9 dated 22nd February 1929, I have the honour to inform you that under Condition 8 (b) of License Form J, Mysore Explosives Rules as amended in Government Notification No. I.C.877/Geol. 120-24-5 dated 12-8-25, a fee of Rs.20/- is levied for testing Lightning Conductors attached to Explosives Magazines. In the event of the test proving unsatisfactory, a further fee of Rs.15/- is charged for each subsequent test until the lightning conductor is passed as satisfactory.

In this connection, I wish to state that, prior to 1925-26, no provision existed in the Mysore Explosives Rules for the levy of such fees and the amendment in this respect was recommended on the lines of amendments made to the Indian Explosives Rules, 1914, on which the Rules under the Mysore Explosives Regulations have been modelled.

I have the honour to be,
Sir,
Your most obedient servant,

R. Bocquet.
CHIEF INSPECTOR OF MINES
IN MYSORE.

R.S.

Genl. 39-28-11

GOVERNMENT OF MYSORE.

ELECTRICAL DEPARTMENT

IN REPLY REFER TO
No. 39806
ENCLS. Two

Telegraphic Address:
"GOMED"

Code Used
BENTLEY'S LIEBER'S
A. B. C. 6TH EDITION
BUSINESS TELEGRAPH CODE

OFFICE OF THE CHIEF ELECTRICAL ENGINEER,
Bangalore 28th February 29
MYSORE, INDIA

SECY. TO GOVT. 1 MAR 1929 DEVELOPMENT BRANCH

7230

The Secretary to the Govt. of
His Highness the Maharaja of Mysore,
Development Department,
Bangalore.

Sir,

Lightning Conductors of Petroleum Installations.

With reference to the correspondence ending with your letter No.D-7779/Gl.39-28-7 of the 29th ultimo, I have the honour to enclose two copies of memo of instructions for testing Lightning Conductors attached to the Petroleum premises for favour of taking further action in the matter.

I have the honour to be,
Sir,
Your most obedient servant,

MGK-AK.

Chief Electrical Engineer.

Appendi · F G–1

SUBJECT.....

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Section Geol

File No. 39-28

Serial No. 12

No. E 9452/Gen (2)

Diary No. of letter replied to.....

General and Revenue Secretariat

( )

the *192*

To

The Chief Electrical Engineer in Burma

Date of issue 16/2/29

Signed by H. C. S. Navanchar for

With reference to your letter No. 38420 dt 8-1-1929 stating that the draft notifn proposed to be published in regard in the matter of amendments to Rules 6, 7 & 8 of Cle. I - Part II - of the Petroleum Rules is in order, I am directed to forward herewith extracts of paras 3 & 4 of letter No. 1463 dt 7-2-29 and copy

List of enclosures.....

Copied by.....

Examined by.....

over

T

I letter Dno. 1583 dt 28-2-29 from the Chief Inspr of Mines in Mysore and to request Govt to be so good as to furnish their opinion as regards the reductions of fees in the Case of Petroleum Installations in the light of the observations by the Chief Inspr.

The favour of an early reply is requested

I have the

W. 14.3.29

Secy to Govt

Appendix F G—1

2

SUBJECT.....

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Section Geol

File No. 39-28

Serial No. 13

Diary No. of letter replied to.....

No. D 9493/Geol (Secy)

General and Revenue Secretariat

( )

the *192*

To

The Dir. of I & C

.....

Date of issue 16/8/29

Sir

Signed by M.V.C.S. Noronha

In continuation of my
reference to your letter
No. C2-312/28-29 dt 27.10.28
and Notifn No. D.7716/Geol
39-28-6 dt 26.1.29 regarding
the testing of Lightning
Conductors on Petroleum
Installations. I am
directed to forward
herewith a copy of the
statement furnishing
the opinions of the several

List of enclosures.....

Copied by.....

Examined by.....

over

officers consulted in the matter
and to request Exe to be so
good as to furnish Exe
opinion as regards the
amendments proposed to
be made to Rules 6, 7 & 8 of
Chap. I - Part II of the Petroleum Rules

The favour of a very
early reply is requested.

Yours truly,

Dir
14/3/79
for Dev: Secy

MG

Geol. 39-28-14

GOVERNMENT OF MYSORE

ELECTRICAL DEPARTMENT

OFFICE OF THE CHIEF ELECTRICAL ENGINEER,

Bangalore 21st March 1929.

MYSORE, INDIA

IN REPLY REFER TO No. 4036 3 ENCLO.

Telegraphic Address: "GOMED"

Codes Used
BENTLEY'S LIEBER'S
A. B. C. 6TH EDITION
BUSINESS TELEGRAPH CODE.

GEN. 8025 23 MAR 1929

DEVELOPMENT BRANCH.

N.Rama Rao, Esq., B.A., B.L.,
Secretary to Government,
Development Department,
BANGALORE.

Sir,

Lightning Conductors Petroleum Tank Installations.

I have your letter No.D.9492/Geol.39-28-12 dated the 16th instant and in reply thereto have the honor to inform you that the fees for testing lightning conductors installed on Petroleum Installations as well as on Explosive Magazines should be the same, but I am not in favour of reducing the fees to those prescribed under the Mysore Explosive Rules.

2. I would call to your attention that not less than two lightning arrester connections must be installed on each Petroleum Tank containing 10,000 gallons or more and that the fees for testing shall be Rs.10 for each connection and that the maximum fee for each tank shall be limited to Rs.50 for each test. The proposed rules also provide the same fees shall be paid for each retest in case the installation is found, at the first test, to be in an unsatisfactory condition.

3. I am, therefore, of the opinion that the fees prescribed for Petroleum Installation are somewhat greater than the fees charged under the Mysore Explosive Rules, in any case these proposed fees and rules are more nearly based on the work to be done and therefore more reasonable

and I would recommend that the Mysore Explosive rules be amended to agree with the proposed rules and fees for Petroleum Installations.

I have the honor to be,
Sir,
Your most obedient servant,

Chief Electrical Engineer
on Special Duty

SGF-PRN.

Geol. 39-28

TELEGRAPHIC ADDRESS :— " INDUSCOM. "

In reply please refer to
No. C2-312/28-29

GOVERNMENT OF MYSORE.

DEPARTMENT OF INDUSTRIES AND COMMERCE.

OFFICE OF THE DIRECTOR,

DEVELOPMENT BRANCH.

Dated, Bangalore, 25th March 1929

FROM

C. RANGANATHA RAO SAHIB, ESQ., B.A., B.L.,
Director of Industries and Commerce in Mysore,
(Bangalore, India.)

To

N. Rama Rao, Esq., B.A., B.L.,
Secretary to the Government of Mysore,
Development Departments, Bangalore.

SIR,

I have the honor to enclose for the information of Government copy of letter No. 5707 dated the 15th March 1929 received from the Standard Oil Company of New York, Esplanade, Madras, regarding the amendments proposed to be made to Rules 6, 7 & 8 Chapter I Part II of the Rules under the Mysore Petroleum Regulation (Vide Government Notification No. 7711/Geol. 39-28-6 dated the 26th January 1929) They point out that it is unnecessary for a Government Department to take up this work and that as the Oil Companies have a number of qualified Engineers in their employment they are in a position to carry out the stipulated tests efficiently and satisfactorily. In British India, the owners or licensees of the Storage installations are required to inspect and test the connections in the manner pres-cribed by the Chief Inspector of Explosives in India. A record of such tests is required to be maintained and produced before the -- Chief Inspector whenever required. I do not however think it is -- necessary to follow the British Indian practice.

I have the honor to be,
Sir,
Your most obedient servant,
C Ranganatha Rao Sahib
Director.

usc)

Copy of letter No. 5707 dated the 15th March 1929 from the Standard Oil Company of New York, Madras, to the Director of Industries and Commerce in Mysore, Bangalore.

Proposed amendments to the Mysore Petroleum Rules

In continuation of our No. 5337 of March 5th, and in direct reply to your D. O. letter No. C2-312/28-29 of February 25th, 1929, we have the honor to point that some three years ago, the Government of Madras considered the advisability of amending the rules under Section 9 of the Indian Petroleum Act of 1899 on a basis similar to that now proposed by you in respect of the Mysore Petroleum Regulations. The Indian Petroleum Act originally contained the following rules : -

" 6. Every tank or other receptacle for the storage of Petroleum in bulk, except a tank or a receptacle which is not of sufficient capacity to contain ten thousand gallons of Petroleum and which is so situated as not to be liable to cause danger in the event of the petroleum being ignited, shall be protected by an efficient lightning Conductor.

Explanation - A tank or receptacle shall be deemed to be so situated as not to be liable to cause danger in the even of the petroleum being ignited, if it is not in close proximity to any other tank or receptacle, or to any building not forming part of the installation, and if it is surounded by a wall, or embankment, or sunk in an excavation, the enclosure thus - formed being sufficient to contain the whole contents or the tank or receptacle.

7. Not less than once in every year the efficiency of every lightning Conductor connected with an installation shall be - tested in the manner prescribed by the Chief Inspector of Explosives by an Officer appointed in that behalf by the licensing authority: and any such Officer shall be permitted to enter the installation for the purpose of such test at any time after sunrise and before sunset. A certificate showing the date of the last test shall be posted in a conspicuous place within the installation.

8. The fee payable for tests carried out under Rule 7 shall be twenty Rupees a year for each conductor tested, a subject to a limit of Two Hundred Rupees for any number of conductors in one installation. Provided that in addition to such fees the licensee shall be liable to pay a fee of fifteen rupees for each unsuccessful test of a Conductor, subject to a limit of Twenty rupees for any number of unsuccessful tests made on one day on a single conductor."

The amendments actually adopted in March 1926 were as - follows -

" 6. Every tank or other receptacle for the storage of Petrolem in bulk, except a tank or a receptacle which is not of sufficient capacity to contain ten thousand gallons of petroleum and is so situated as not to be liable to cause danger in the eventof the petroleum being ignited, shall be electrically connected with the earth in an efficient manner by means of not less than two separate and distinct connections placed at opposite extremities of such tank or receptacle and the roof and all metal connections of such tank or receptacle shall be in - efficient electrical contact with the body of such tank or -- receptacle.

Explanation : A tank or receptacle shall be deemed to be so

situated as not to be liable to cause danger in the event of the petroleum being ignited, if it is not in close proximity to any other tank or receptacle, or to any building not form -ing part of the installation, and if it surrounded by a wall or embankment or snk in an excavation, the enclosure thus - formed being sufficient to contain the whole contents of the the tank or receptacle.

7. Not less than once in every year the connections and - contacts referred to in Rule 6 shall be inspected and tested by the licensee of the tank or receptacle in the manner pres -cribed by the Chief Inspector of Explosives in India and a record of such inspections and tests shall be maintained by such licensee and such record shall be produced on demand by the Chief Inspector or an Inspector of explosives.

b) Rule 8 shall be cancelled. "

The point of the foregoing is, that we feel it is unnecessary for you to burden the Electrical Department of your Government with the onerous duty of testing the connections and contact provided for in your Amendment No. 6. All of the Oil Companies have a number of qualified Engineers in their employ and are in a position to carry out stipulated tests efficiently and satisfactorily. In their own interests, the Oil Companies will naturally carry out such tests as -- would prove conclusively that the expensive equipment installed by them was in a satisfactory working condition.

We sincerely trust that in passing the proposed amendments to the Mysore Petroleum Regulation No. 1 of 1923, you will modify amendment No. 7 so as to make it incumbent on the various Oil Companies to test their own Electrical connections and contacts at certain stated intervals, thus eliminating the necessity for the Electrical Department of the Government of Mysore to make any tests. If our suggestion is -- adopted, amendment No. 8 would automatically be eliminated.

" COPY "

Director.

Geol. 39-28-16

TELEGRAPHIC ADDRESS :— " INDUSCOM. "

In reply please refer to
No. C 312 /28-29

GOVERNMENT OF MYSORE.

DEPARTMENT OF INDUSTRIES AND COMMERCE.

OFFICE OF THE DIRECTOR,

23 APR. 1929

DEVELOPMENT BRANCH.

8974

Dated, Bangalore, 22nd April 1929.

FROM

C. RANGANATHA RAO SAHIB, Esq., B.A., B.L.,

Director of Industries and Commerce in Mysore,
(Bangalore, India.)

To

N. RAMA RAO, ESQ., B.A., B.L.,

Secretary to the Government of Mysore,
Development Departments, B a n g a l o r é.

SIR,

With reference to your letter No. D.9493/Geol 39-28-13 dated the 16th March 1929, sending the statement furnishing the opinions of the several officers consulted regarding the draft rules providing for the testing of the electric connections of the storage tanks, I have the honour to invite your kind reference to my letter of the same No. dated the 21st March 1929. The Oil Companies prefer our following the same practice as in British India, as they have qualified enquirers in their service, who can carry out the stipulated tests efficiently and satisfactorily. If Government decide to make special provisions in the State for the testing of the electric connectic in view of the fact that there is a well equipped Government Department, the scale of fees proposed by the Chief Electrical Engineer may be approved. The draft rules published with the Notification No.7711/Geol 39-28-6 dated the 26th January 1929 may be brought into force at an early date.

I have the honour to be,
Sir,
Your most obedient servant,

C Ranganatha Rao Sahib

DIRECTOR.

AKM.

Geol 39-28-17

33

Proceedings of the Govt. of H.H.
the Maharaja of Mysore.

Read -

Letter No.C_2 312/28-29 dated 21st August 1928 from the Director of I & C in Mysore stating that in the interests of the safety of the public it is necessary to make some efficient arrangements for the systematic inspection of -- lightning conductors on Petroleum Installations in the State and that the work may be entrusted to the officers of the Electric Department.

Date 18/7/29

Signed Sir C.S.

2. Notification No.D.7711/Geol. 39-28-6 dated 26th January 1929 publishing certain draft amendments to rules 6 7 and 8 of Chapter I - Part II of the Petroleum Rules and calling for the opinions of the persons likely to be affected thereby.

3. Letter No.1463 dated 7th Febry 1929 from the Chief Inspector of Mines in Mysore giving his views on the subject.

4. Letter No.39806 dated 28th February 1929 from the Chief Electrical Engineer in Mysore forwarding a memo of instructions for testing the ~~xixt~~ lightning conductors attached to ~~the~~ Petroleum premises.

Order No.D. 444-46

Dated, Bangalore, 13/. 1929.

Government are of opinion that in

the public interest it is necessary to provide for the efficient and systematic inspection of lightning conductors on petroleum installations, and are pleased to approve ~~of~~ sfet the amendments to Rules 6, 7 and 8 of Chapter I-Part II of the Petroleum Rules already notified in the Gazette. They also approve ~~of~~ sfet the memorandum of instructions ~~herewith issued~~ av for ~~the~~ conduct ~~of the~~ testing ~~of~~ lightning conductors attached to ~~the~~ Petroleum premises or Electric Earths on Petroleum Tanks and direct that they be strictly adhered to in the conduct of future tests and inspections.

3. A notification amending Rules 6, 7 and 8 of Chapter I-part II and the memorandum of instructions will be separately published in the Gazette.

4/7/29

6/7/29

Secy. to Government,
Development Departments.

To ~~the~~ Cir 247

The Director of Industries and Commerce.

The Chief Electrical Engineer in Mysore.

The Chief Inspector of Mines.

ASH.

Jkl 378-28

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App. F. VI G 10.

Government of His Highness the Maharaja of Mysore.

GENERAL AND REVENUE DEPARTMENTS

Lightning Conductors

Passes orders re the efficient and systematic inspection of ——— on petroleum installations in the State.

G. O. No. D. 446-b/Eccl. 39-28-17 DATED 13th July 1929.

May this be

i. printed? } Yes

ii. treated as a standing order? }

iii. published in the Gazette English Part? } ~~Yes~~ No.

iv. translated?

v. placed at the disposal of the press?

vi. published in the Gazette Kannada Part?

VS

15.7.29

36

S. O.

Government of his highness the Maharaja of Mysore.

GENERAL AND REVENUE DEPARTMENTS.

G. O. No. D. 444-46—Geol. 39-28-17, dated 13th July 1929.

Lightning Conductors.

Passes orders *re* the efficient and systematic inspection of —— on petroleum installations in the State.—

READ—

Letter No. C, 312—28-29, dated 21st August 1928, from the Director of Industries and Commerce in Mysore, stating that in the interests of the safety of the public it is necessary to make some efficient arrangements for the systematic inspection of lightning conductors on petroleum installations in the State and that the work may be entrusted to the officers of the Electric Department.

2. Notification No. D. 7711—Geol. 39-28-6, dated 26th January 1929, publishing certain draft amendments to Rules 6, 7 and 8 of Chapter I—Part II of the Petroleum Rules and calling for the opinions of the persons likely to be affected thereby.

3. Letter No. 1463, dated 7th February 1929, from the Chief Inspector of Mines in Mysore, giving his views on the subject.

4. Letter No. 39806, dated 28th February 1929, from the Chief Electrical Engineer in Mysore, forwarding a memorandum of instructions for testing the lightning conductors attached to Petroleum premises.

ORDER No. D. 444-46—GEOL. 39-28-17, DATED 13TH JULY 1929.

Government are of opinion that in the public interest it is necessary to provide for the efficient and systematic inspection of lightning conductors on petroleum installations, and are pleased to approve of the amendments to Rules 6, 7 and 8 of the Chapter I—Part II of the Petroleum Rules already notified in the Gazette. They also approve of the memorandum of instructions for testing lightning conductors attached to Petroleum premises, or Electric Earths on Petroleum Tanks and direct that they be strictly adhered to in the conduct of future tests and inspections.

3. A notification amending Rules 6, 7 and 8 of Chapter I—Part II and the memorandum of instructions will be separately published in the Gazette.

N. RAMA RAO,
Secretary to Government,
Development Departments.

To—The Director of Industries and Commerce in Mysore.
The Chief Electrical Engineer in Mysore.
The Chief Inspector of Mines in Mysore.

EXD.—P. S. R. N.

W D 173—GPB—525—23-7-29

Geol 39-28-15 C

D 447 37

Notification.

In exercise of the powers conferred by Sec. 8 of the Mysore Petroleum Regulation I of 1923, the Government of H.H. the Maharaja of Mysore are pleased to make the following amendments in the rules to regulate the possession and transport of petroleum which were published in notification No.D.7711-Geol. 39-28-3 dated the 24th January 1929 for general information.

Dated 18/7/8

Signed C.V.N. Rao

Amendments.

In chapter I of part II of the said Rules: -

For Rules 6, 7, and 8 the following shall be substituted: -

"6 Every tank or other receptacle for the storage of petroleum in bulk, except a tank or receptacle which is not of sufficient capacity to contain 10,000 gallons of petroleum, and is so situated as not to be liable to cause danger in the event of the petroleum being ignited, shall be electrically connected with the earth in an efficient manner by means of not less than two separate and distinct connections placed at opposite extremities of such tank or receptacle and the roof and all metal connections of such tank or receptacle shall be in efficient electrical contact with the body of such tank or receptacle.

Explanation - A tank or receptacle shall be deemed to be so situated as not to be liable to cause danger in the event

p.t.o.

of the petroleum being ignited if it is not in close proximity to any other tank or receptacle or to any building not forming part of the installation and if it is surrounded by a wall or embankment or sunk in an excavation, the enclosure thus formed being sufficient to contain the whole contents of the tank or receptacle.

7. Not less than once in every year the connections and contacts referred to in Rule 6 shall be inspected and tested by the General Electric Inspector of the Mysore Electrical Department who shall be given every facility for such inspection by the licensee of the tank or receptacle. The General Electric Inspector shall conduct the tests in such manner as may be prescribed by the Chief Electrical Engineer and prepare a report of the result in duplicate. One of the copies shall be furnished to the licensee and the other submitted to the Chief Electrical Engineer who shall forward it without avoidable delay with his remarks to the Director of Industries and Commerce for record.

8. The fee payable for tests carried out under Rule 7 shall be Rs.10 a year for each connection, but shall not exceed Rs.50 for any number of connections relating to one receptacle. In case the test discloses an unsatisfactory connection, and the need for rectification, the licensee shall nevertheless be liable to pay the prescribed fee and be likewise liable

to pay a fee at the same rate for every subsequent test which may be necessary till the connections are passed by the Director of Industries and Commerce on the report of the General Electrical Inspector.

Print the accompanying memo of instructions as an annexure.

[ ]

By Order,

Secretary to Govt.Dev.Deptts.

6/7/29

To

The Compiler, Mysore Gazette, for publication in the Gazette and with a request that spare copies of the same may be supplied as noted in the margin.

100 to this Office.
250 to the Director of Industries and Commerce.
50 to the Chief Electrical Engineer in Mysore.

Memo No.D. 448

Dated, Bangalore, 13/7 1929.

Copy forwarded with compliments to the Director of Industries and Com erce with reference to correspondence ending with his ~~x~~ letter No.C2 312/28-29 dated 23rd April 1929.

By Order,

Dev. Secretary to Govt.,

Memo No.D. 449

Dated, Bangalore, 13/7 1929.

Copy forwarded with compliments to the ~~xxxx~~ Chief Electrical Engineer in Mysore with reference to correspondence ending with his letter No.40363 dated

p.t.o.

21st March 1929.

By Order,

~~For~~ Secy. to Govt.Dev.Deptts.

ACH.

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41

GOVERNMENT OF MYSORE

ELECTRICAL DEPARTMENT

OFFICE OF THE CHIEF ELECTRICAL ENGINEER,

Bangalore 25th Feby. 192 9

MYSORE, INDIA

Instructions for testing Lighting conductors attached to ~~explosive magazines or~~ Petroleum pressures or Electric Earths on Petroleum Tanks.

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1. First examine visually all joints and connections above ground to discover if any of these are loose or disconnected.

2. If accessible examine the point or points on the Lightning rod to see if it is firmly fixed to the Lightning rod. Notice whether any of the staples fastening the conductor to the walls have come away.

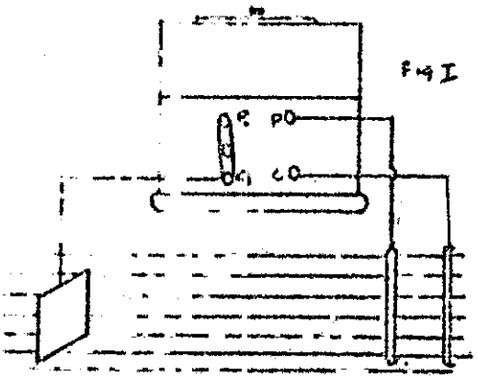
3. The actual test should be conducted during the dry season.

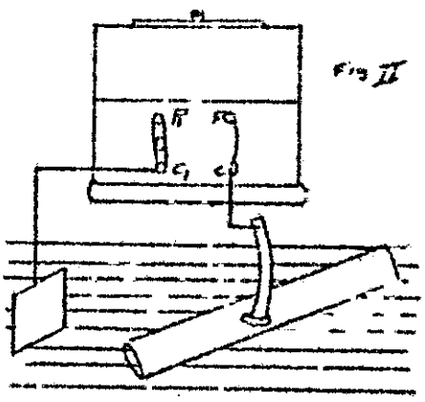
4. The best instrument that can be used for this purpose is the earth Tester (consisting of an ohm meter and a generator mounted in the same case made by the well known firm Evershed and Vignoles Ltd., London) which gives results very accurately by a single direct reading.

METHOD OF TESTING GENERAL.

The instrument should be placed on a steady base and connected up according to the diagram given below for the type of test to be carried out. The generator handle should be turned clockwise at about 100 revolutions per minute, the actual speed being unimportant. Before starting any test the range switch

should be set to the higher range. If the reading obtained is below 1/10th of the maximum scale value, the range switch should be moved over to the lower range.





Testing an earth plate or eathed metal structure.

The two terminals P_1 and C_1 on the left being linked the terminal C_1 is connected to the earth plate or metal structure to be tested, while the other two terminals P and C are connected to two temporary earths as shown in Fig.1.

The temporary earths employed for the various tests mentioned above may consist of 1" gas piping driven two or three feet into the ground. Water, preferably salt water, should be poured round the pipes in order to improve the contact structure, the temporary earth connected to the terminal P should be at least 10 feet* from the earth plate or structure, the temporary earth connected to the terminal C being a further two feet or so away.

Note :- *As the result of a large number of tests on earthing plates carried out by the American Bureau of Standards it can be definitely stated that if the temporary earth No.2 is ten feet or more away from the permanent earth plate the reading can be relied upon within ordinary limits to give the correct resistance of the earth plate to earth.

5. Testing an earth plate or Earthed metal structure when a low resistance earth is available.

If an earth plate or metal structure such as a water main, is available whose resistance to earth is known to be negligible the connections may be simplified and may follow the scheme shown in Fig.2 terminals P_1 and C_1 are linked and connected to the earth plate and the other two terminals P and C are connected together and to the metal structure.

Note:- if the above instrument is not available the next best method of testing is by using the Wheatstone Bridge with the auxiliary earths.

6. When testing petroleum tanks, it should be made positively certain that petrol vapour is not present.

7. The result of the test should not be considered satisfactory unless the resistance of the Lightning Conductors attached to the petroleum tanks is found to be less than 10 Ohms.

Chief Electrical Engineer.

Bangalore,
26th Feb. '29
SGF-MGK-AK.

DEVELOPMENT SECRETARY.

No. D. 447—*Geol.* 39-28-18, *dated* 13*th July* 1929.

In exercise of the powers conferred by section 8 of the Mysore Petroleum Regulation I of 1923, the Government of His Highness the Maharaja of Mysore are pleased to make the following amendments in the Rules to regulate the possession and transport of petroleum which were published in Notification No. D. 7711-Geol. 39-28-6, dated the 24th January 1929, for general information.

AMENDMENTS.

In Chapter I of Part II of the said Rules :—

For Rules 6, 7 and 8 the following shall be substituted :—

"6 Every tank or other receptacle for the storage of petroleum in bulk except a tank or receptacle which is not of sufficient capacity to contain 10,000 gallons of petroleum and is so situated as not to be liable to cause danger in the event of the petroleum being ignited shall be electrically connected with the earth in an efficient manner by means of not less than two separate and distinct connections placed at opposite extremities of such tank or receptacle and the roof and all metal connections of such tank or receptacle shall be in efficient electrical contact with the body of such tank or receptacle.

Explanation.—A tank or receptacle shall be deemed to be so situated as not to be liable to cause danger in the event of the petroleum being ignited if it is not in close proximity to any other tank or receptacle or to any building not forming part of the installation and if it is surrounded by a wall or embankment or sunk in an excavation, the enclosure thus formed being sufficient to contain the whole contents of the tank or receptacle.

7. Not less than once in every year the connections and contacts referred to in Rule 6 shall be inspected and tested by the General Electric Inspector of the Mysore Electrical Department who shall be given every facility for such inspection by the licensee of the tank or receptacle. The General Electric Inspector shall conduct the tests in such manner as may be prescribed by the Chief Electrical Engineer and prepare a report of the result in duplicate. One of the copies shall be furnished to the licensee and the other submitted to the Chief Electrical Engineer who shall forward it without avoidable delay with his remarks to the Director of Industries and Commerce for record.

8. The fee payable for tests carried out under Rule 7 shall be Rs. 10 a year for each connection, but shall not exceed Rs. 50 for any number of connections relating to one receptacle. In case the test discloses an unsatisfactory connection, and the need for rectification, the licensee shall nevertheless be liable to pay the prescribed fee and be likewise liable to pay a fee at the same rate for every subsequent test which may be necessary till the connections are passed by the Director of Industries and Commerce on the report of the General Electrical Inspector.

INSTRUCTIONS FOR TESTING LIGHTNING CONDUCTORS ATTACHED TO PETROLEUM PREMISES OF ELECTRIC EARTHS ON PETROLEUM TANKS.

1. First examine visually all joints and connections above ground to discover if any of these are loose or disconnected.

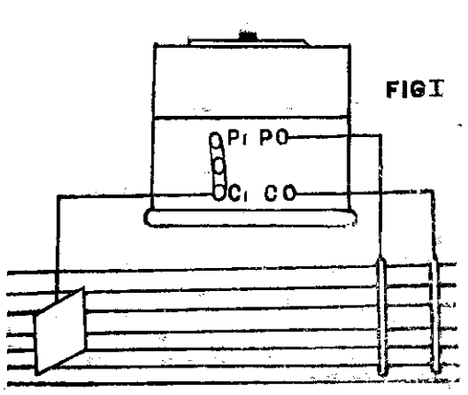
2. If accessible examine the point or points on the Lightning rod to see if it is firmly fixed to the Lightning rod. Notice whether any of the staples fastening the conductor to the walls have come away.

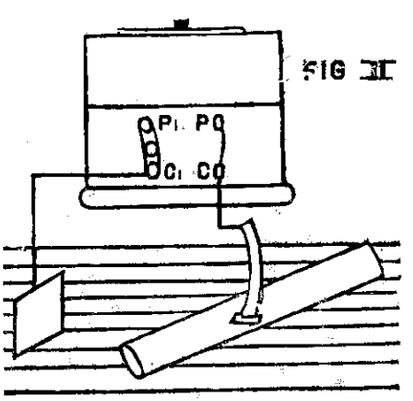
3. The actual test should be conducted during the dry season.

4. The best instrument that can be used for this purpose is the earth Tester (consisting of an ohm meter and a generator mounted in the same case made by the well known firm Evershed and Vignoles Ltd., London) which gives results very accurately by a single direct reading.

METHOD OF TESTING GENERAL.

The instrument should be placed on a steady base and connected up according to the diagram given below for the type of test to be carried out. The generator handle should be turned clockwise at about 100 revolutions per minute, the actual speed being unimportant. Before starting any test the range switch should be set to the higher range. If the reading obtained is below 1—10th of the maximum scale value, the range switch should be moved over to the lower range.





Testing an earth plate or eathed metal Structure..

The two terminals P1. and C1. on the left being linked the terminal C1. is connected to the earth plate or metal structure to be tested, while the other two terminals P. and C. are connected to two temporary earths as shown in Fig. 1.

The temporary earths employed for the various tests mentioned above may consist of 1" gas piping driven two or three feet into the ground. Water, preferably salt water, should be poured round the pipes in order to improve the contact structure, the temporary earth connected to the terminal P should be at least 10 feet from the earth plate or structure, the temporary earth connected to the terminal C. being a further two feet or so away.

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If an earth plate or metal structure such as a water main, is available whose resistance to earth is known to be negligible, the connections may be simplified and may follow the scheme shown in Fig. 2 terminals P1. and C1. are linked and connected to the earth plate and the other two terminals P. and C. are connected together and to the metal structure.

NOTE.—If the above instrument is not available the next best method of testing is by using the Wheatstone Bridge with the auxiliary earths.

7. When testing petroleum tanks, it should be made positively cartain that petrol vapour is not present.

7. The result of the test should not be considered satisfactory unless the resistance of the Lightning Conductors attached to the petroleum tanks is found to be less than 10 Ohms.

By Order,

N. RAMA RAO,

Secretary to Government,
Development Departments.